

Claims:

- 5 1. System for lifting and moving an object from one point to another, said system comprising :
- 10 a. A partially hollow vertical post, said post being equipped at its base with a rotating system using said post as its vertical axis and means insuring its solidity with a support which could be the ground itself;
- b. A lateral arm pivotally held to said vertical post and including rail means on which a carriage moves;
- c. One or more supporting arms firmly held to said vertical post to support said arm laterally; and
- d. means to hold said object by a cable attached to said carriage.
- 15 2. A system as claimed in claim 1 wherein the lateral arm is held to said vertical post using means that allow movement in any plan passing through the axis of said post.
- 20 3. A system as described in claim 1 in which the vertical post comprises a piston which is vertically movable within said post, preferably using pressure created by a fluid, said fluid being a liquid a gas or a granular material and preferably chosen from in a group comprising air, inert gases, synthetic oils, natural oils, mercury, water, sand, polymer beads and steel beads.
- 25 4. A system as described in claim 3 wherein said piston is held solidly by a cable and said carriage being displaceable within or on said rail together with said object holding means.
- 30 5. A system as described in claim 1 in which the carriage comprises means allowing the carriage to be displaceable on said lateral arm and wherein said object holding means are arranged so as to remain at a constant distance from the carriage no matter where

the carriage is located on said rail.

6. A system as described in claim 5 wherein said means allowing the carriage to be displaced is a system of pulleys.
7. A system as described in claim 3 wherein said vertical displacement means comprise low pressure air being approximately four pounds per square inch.
8. A system as described in claim 3 wherein the said piston comprises sealing means which use of friction produced by air when it exits through a small aperture thus creating compressed air under the piston while consuming a small quantity of air.
9. A system as described in claim 8 wherein said air pressure is approximately four pounds per square inch.
10. A system as described in claim 3 wherein said piston is characterized by the fact that air exhaust during the movement of the piston causes the piston to center itself within the root and prevents the wear of the moving parts.
11. A system as described in claim 9 wherein said air exit insures the guidance of the piston and the sealing of the air eliminates the need to pressurize the top of the piston or to control the air exhaust by the use of a valve.
12. A system as described in claim 3 wherein said post is used as a compression chamber.
13. A system as described in claim 12 wherein said lateral arm may be movable 360° around said post.
14. A system as described in claim 1 in which said carriage comprises pulleys attached one to the others to produce a braking effect to prevent unwanted movement.

15. A system as described in claim 2 comprises a counterweight comprising first fluid reservoir and an opening in its underside allowing it to be rapidly emptied of fluid.

16. A system as described in claim 15 further comprising a second reservoir located above said first reservoir such that when the system is not in use, used fluid may be introduced in said second reservoir also equipped in its underside to allow the filling of said first reservoir when needed.

17. A system as described in claim 16 in which the means to move said fluid is a small with jars in a continuous movement.

18. A system as described in claim 17 wherein said fluid is chosen from a group comprising air, inert gases, synthetic oils, natural oils, mercury, water, sand, polymer beads and steel beads.

19. A system as described in claim 18 wherein said fluid is mercury used in a closed circuit.